

REMARKS

Entry of the foregoing, re-examination and reconsideration of the subject matter identified in caption, as amended, pursuant to and consistent with 37 C.F.R. §1.116, and in light of the remarks which follow, are respectfully requested.

Claims 1, 18, 33 and 48 have been amended by replacing a phrase relating to an optional component with language specifying that the silicon carbide constitutes more than 50% by volume of total reinforcing filler. Support for this feature may be found on page 22, lines 5-9 of the specification. Claims 1-80 remain pending in this application.

Turning to the Final Rejection, claims 1, 2, 4, 5, 7-19, 21, 22, 24-34, 36, 37, 39-49, 51, 52 and 54-80 were rejected under 35 U.S.C. §102(e) as anticipated by U.S. Patent No. 6,469,089 to Wang et al. for reasons given in paragraphs (2) and (6) of the Office Action. Reconsideration is requested of this rejection in view of the above amendments and for at least the following reasons.

In the compositions disclosed in Wang et al. '089, a wet skid enhancing filler such as silicon carbide is combined with at least one other filler which is preferably a reinforcing filler. In Table 4 where SiC is used in the formulations of Example 8-13, the amounts of reinforcing carbon black range from 54 to 63 phr while the amounts of SiC range from 18 to 32 phr. Thus, the formations specifically disclosed in Wang et al. '089 to exemplify the invention thereof employ minor amounts of SiC to enhance wet skid resistance and major amounts of reinforcing filler.

To the contrary, SiC is used in the present invention in amounts to provide reinforcement. In the present specification, as is well-known by those of ordinary skill in the art, a "reinforcing filler" means "a filler which is capable on its own to

replace tire-grade carbon black filler in its reinforcement function” (page 22, 3rd paragraph) to strengthen wear resistance. IN the specification, SiC is clearly used in this function as it is said: “the reinforcing silicon carbide may constitute the entire reinforcing filler” (page 22, lines 9-10). The present claims, as amended, specify that SiC constitutes more than 50% by volume of total reinforcing filler. This clearly avoids the specific formulations set forth in Table 4 of Wang et al. '089. Moreover, this reference fails to disclose or suggest any composition where SiC is used as a reinforcing filler.

The sole disclosure in Wang et al. '089 relating to the particle size of SiC is alleged to be in the footnote to Table 1, specifically commercial products identified as SiC PT8026J and BPT8044-1. In the Office Action mailed November 25, 2003, reference was made to an attached copy of a website of Nanomaterials Research Corporation which allegedly supplied particle sizes of the aforementioned commercial products. In the Amendment filed April 21, 2004, Applicants noted that the copy of the website attached to the Office Action did not identify the products listed in Table 1 of Wang et al. '089.

Attached to the Office Action mailed July 15, 2004, are copies of product data sheets for BPT and PT. These data sheets do not mention the products identified in Table 1 of Wang et al. '089. Accordingly, there is nothing of record which discloses the average particle size of the two SiC products used in the Examples in Table 3 of this reference.

Claims 65, 69, 73 and 77 specify that SiC is present in amounts greater than 60 phr while claims 66, 70, 74 and 78 specify that the amount of SiC is greater than

70 phr. Applicants have been unable to locate any disclosure in Wang et al. '089 which anticipates these ranges.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628,631, 2 U.S.P.Q.2d 1051,1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226,1236, 9 U.S.P.Q.2d 1913,1920 (Fed. Cir. 1989). Applicants respectfully submit that there is no disclosure in Wang et al. '089 that constitutes an anticipation of any of the present claims. Accordingly, the §102(e) rejection over Wang et al. '089 should be withdrawn.

Claims 1-80 were rejected under 35 U.S.C. §102(e) as anticipated by U.S. Patent No. 6,121,346 to Visel et al. in view of evidence in U.S. Patent No. 6,469,089 to Wang et al. for reasons set forth in paragraphs (3) and (6) of the Final Rejection. Reconsideration of this rejection is requested for at least the following reasons.

Visel et al. '346 discloses compositions including fillers constituted by an agglomeration of small and large particles. A lengthy list of large particles is given, in which SiC is cited with the only precision concerning its commercial particle size comprised between 5 and 150 nm (column 5, line 11). Thus, this document does not anticipate claim 1, for example, as no information concerning the BET specific surface area of SiC is given therein. The rejection relies on the information in Wang et al. '089 to provide a BET surface area. However, in reviewing the data sheet for SiC BPT lots, one of ordinary skill would be just as likely to select SiC particles having a particle size outside the presently claimed range (e.g. below 10 nm) or a

BET surface area outside the presently claimed range (e.g. over 200 m²/gm). The same would be true of the data sheet for SiC PT (surface areas below 20 m²/gm).

To be anticipatory, a reference must clearly and unequivocally disclose the claimed invention without any need for picking, choosing and combining various disclosures; *In re Arkley*, 172 U.S.P.Q. 524,526. Thus, there is no specific direction in Visel et al. '346 to select SiC among the manner fillers disclosed and then select an SiC having a particle size and surface area within the ranges set forth in the present claims. In the absence of the present disclosure, there is no specific teaching in this reference which would direct those skilled in the art to select SiC having a particle size and surface area within the ranges of the present claims as opposed to other fillers or SiC having properties outside the presently claimed ranges.

For at least these reasons, the §102(e) rejection based on Visel et al. '346 should be reconsidered and withdrawn.

Claims 3, 6, 20, 23, 35, 38, 50 and 53 were rejected under 35 U.S.C. §103(a) as obvious over Wang et al. '089 in view of Visel et al. '346 for reasons given in paragraphs (5) and (6) of the Office Action. Reconsideration of this rejection is requested in view of the above amendments and for at least the following reasons.

The combined teachings of both references fail to disclose or suggest all the features of the rejected claims for reasons discussed previously in connection with the §102(e) rejections. Moreover, the data in the specification shows the unexpected nature of the present invention. Thus, Comparative Test 1 on page 40 demonstrates that known silicon carbides, even in the presence of a high-performance coupling agent, do not act as a reinforcing inorganic filler (see comments, page 42, lines 7-

21). Only the specific silicon carbides as claimed act as a true reinforcing filler, capable of replacing carbon black, as shown in Test 2 (page 42, comments on page 44, lines 1-7). Test 3 (page 44, page 46, lines 12-19) shows that a true reinforcing silicon carbide (filler E), when compared to carbon black and silica, provides, quite unexpectedly, vulcanization kinetics (illustrated by the conversion rate constant K – see Table 7) which are just as good as carbon black but represent a significant improvement compared with reinforcing white fillers such as silicas which, for an equivalent formulation, suffer in known manner from a very significant reduction in the constant K (generally divided by a factor of 2 to 3).

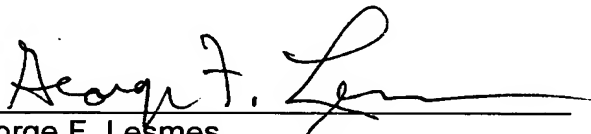
In view of the above, the §103(a) rejection should be withdrawn. Such action is respectfully requested.

From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order and such action is earnestly solicited. If there are any questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned at (703) 838-6683 at her earliest convenience.

Respectfully submitted,

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